

RR Lyrae Stars in the MACHO Database

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About 10000 RR Lyrae stars have been discovered by the MACHO Project in the Large Magellanic Cloud and in the Galactic bulge. These variables are excellent distance indicators, and are used as probes to study the structure of the Large Magellanic Cloud and the bulge. The discovery of RR Lyrae stars in the MACHO database belonging to the Sgr dwarf galaxy will also be reported. A number of double-mode RR Lyrae stars are also found in the Large Magellanic Cloud. Precise relative metallicities for the RR Lyrae stars are determined using the shape of the high-quality MACHO lightcurves. These stars provide important clues for understanding the formation and evolution of thinner Galaxy, the Large Magellanic Cloud and the Sgr dwarf galaxy.

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